

REMARKS

In paragraph 0068 the typographical error "premices" by has been replaced by "premises".

The Examiner considers that claims 1, 6, 15 and 20 are not clear.

Claims 1, 2, 6, 12 and 15 have been rewritten as new claims 27-30 to obviate the rejections based on 35 USC 112, paragraph 1, and the rejections based on 35 USC 103(a), viz: the rejection of the combination of FINN et al., USP 6,496,881, and newly cited PHILIPSSON, USP 7,006,624, and of claims 9 and 18 being obvious as a result of the combination of FINN, PHILIPSSON and JANSE.

Support for the limitations of claims 27-30 is found in paragraphs 9-10, 55-71, 93-100, 115, 137 and 138 of the US patent publication.

The dependencies of dependent claims 3 to 5 and 23 have been changed.

The Office Action admits FINN does not disclose the previously claimed weighting feature, but says PHILIPSSON discloses such a feature.

PHILIPSSON concerns a telephone having a loudspeaker and a microphone, which controls the loudspeaker volume of the telephone based on the estimated distance between the microphone and the loudspeaker of the telephone. The distance between the microphone and the loudspeaker is estimated on the basis of signals of the loudspeaker and the microphone of the telephone. Figure 1 of PHILIPSSON includes a FIR filter, which filters the signal of the loudspeakers to generate an echo estimate signal *sl* and the optimum setting of the FIR filter is determined by an LMS control block. Weighting is only based on the sole loudspeaker and sole microphone of the same telephone.

On the contrary, each of claims 26-30 requires weighting of said at least one broadcasted signal received by a microphone of said communication device, using said weighting coefficients and thus providing a signal *S_{xa}* corresponding to the adding of the signals broadcasted by the other telecommunication devices and each of claims 27-29 requires a receiver for receiving from said at least one other communication device information representative of a signal emitted by at least one loud speaker of said at least one other communication device.

Coupling, between a microphone of a communication device obtaining a signal

and the loudspeaker of **another** communication device, means the distance separating the microphone of the communication device obtaining a signal and the loudspeaker of the other communication device.

The distance set forth in claims 27-30 is the direct and/or indirect distance between the microphone of the communication device and the loudspeaker of the other communication device. The indirect distance is the distance traveled by the acoustic wave, which takes account of the various multiple paths and reflections thereof before arriving at the microphone of the communication device.

Compared to PHILIPSSON, which discloses only one telephone, claims 27-30 require at least two communication devices. As a consequence, PHILIPSSON is not relevant.

The Applicant does not agree one of ordinary skill would have modified FINN et al. as a result of PHILIPSSON. FINN does not disclose nor suggest weighting of signals as a function of the coupling between the microphone of the considered device and the loudspeaker of every other communication devices. PHILIPSSON depicts the use of FIR coefficients to estimate the distance between a microphone and a loudspeaker of only one telephone. Nothing encourages one skilled in the art reading either reference to realize echo processing in an environment including at least two devices, using weighting of signals as a function of coupling between the microphone of a considered device and the loudspeaker **of other** devices of the environment.

The combination of FINN and PHILIPSSON is not obvious, because they do not deal with the same types of devices: FINN's system is "multi-devices", and PHILIPSSON's is a simple telephone.

Moreover, this combination would not disclose the subject matter of claims 27-30. PHILIPSSON discloses a FIR filter for estimating the distance between a microphone and a loudspeaker of **the same telephone**. As a consequence, a device resulting from the combination of FINN and PHILIPSSON, would provide a system in which the loudspeaker volume of each device is controlled based on the estimated distance between the microphone and the loudspeaker of **the same device**, but this weighting would not take into account the coupling coming from the other devices.

However, claims 27-30 require for each communication device, the picked-up

signal reproduced by the loudspeaker of other communication devices of the system to be weighted by a coefficient representative **of the coupling between the microphone of the device getting the signal and the loudspeakers of other devices**, and that the signal delivered by the microphone of said device is modified as a function of this coefficient and of the signal reproduced by the loudspeaker of other communication devices.

This feature of the proposed invention is not disclosed nor suggested by the combination of FINN and PHILIPSSON.

Neither FINN nor PHILIPSSON discloses weighting of signals as a function of coupling between the microphone of a considered device and the loudspeaker **of other** devices of the environment. Therefore, claims 27-30 are patentable.

The dependent claims are allowable with claims 27-30. JANSE does not cure the foregoing deficiencies of FINN et al. and PHILIPSSON. Allowance is in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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